

REMARKS

This Application has been carefully reviewed in light of the Office Action mailed September 13, 2002. In order to advance prosecution of this case, Applicants have amended Claims 79, 82, 87, and 90. Applicants respectfully request reconsideration and favorable action in this case.

Section 103 Rejections

The Office Action rejects Claims 79-83, 86-91, and 94-96 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,756,367 issued to Puri et al. ("*Puri*") in view of U.S. Patent No. 5,785,133 issued to Murray et al. ("*Murray*"). Applicants respectfully disagree with the Examiner's rejection.

Independent Claim 79, as amended, is patentable over *Puri* in view of *Murray* for at least the reason that neither *Puri* nor *Murray*, alone or in combination, disclose, teach, or suggest forming a drainage pattern in a coal seam that provides uniform coverage of a selected area of the coal seam, and simultaneously removing water and coal seam gas substantially uniformly from the selected area of the coal seam through the drainage pattern. There is no teaching in these references of the uniform removal of water and coal seam gas from an area. Although *Puri* discloses the simultaneous removal of water and gas, such removal would not be substantially uniform due to the drainage characteristics of the five vertical well pattern disclosed in that patent. *Murray* does not disclose any simultaneous removal of water and coal seam gas from an area, much less uniform, simultaneous removal of water and coal seam gas from an area.

Furthermore, there is no motivation or teaching in either *Puri* or *Murray* to combine the teachings of *Puri* with those of *Murray*. Although *Puri* discloses production of gas and water through vertical wells, there is no suggestion in *Puri* that any other orientation or pattern of the individual wells would be advantageous. Similarly, although *Murray* discloses a horizontally extending portion of a well with a plurality of lateral boreholes, there is no suggestion in *Murray* of production from such a pattern of mixtures of gas and water. The Examiner states in the Final Office Action (p. 8) that there is a suggestion to combine to two references since *Murray* teaches forming multiple laterals off of a single borehole extending to the surface. However, Applicants fail to see how this supports the combination of

teachings from the references asserted by the Examiner. The Examiner states that there is an advantage in combining the teachings of *Murray* and *Puri* since only a single surface bore is required. First, the fact that a combination is advantageous does *not* mean there is a suggestion to combine. Second, *Murray* already discloses that only a single surface bore may be used, so no teaching from *Puri* is needed to show this. What *Murray* does not disclose, teach, or suggest is simultaneously and uniformly removing gas and water through a drainage pattern in a coal or other gas bearing seam. There is no suggestion to combine *Murray* and *Puri* to perform such simultaneous and uniform removal. This is the combination that needs to be suggested, and it is not.

Moreover, *Puri* teaches away from the use of a single surface bore. *Puri* teaches "a method for producing gas from a coal seam *by at least two wells*." In this method, natural gas and liquid are removed from the coal seam through at least one of the wells. At least a portion of the natural gas is then reinjected into the coal seam through a second of the at least two wells *while continuing to remove natural gas and liquid from the coal seam*. (Column 3, lines 8-16). Therefore, *Puri* requires at least two surface bores. Therefore, there is no suggestion to combine these two references in the manner asserted by the Examiner.

For at least these reasons, Applicants respectfully request reconsideration and allowance of Claim 79, as well as the claims which depend from Claim 79. Furthermore, for similar reasons, Applicants respectfully request reconsideration and allowance of Claim 87, as well as the claims which depend from Claim 87, all of which contain similar limitations to those found in Claim 79 and its dependent claims.

The Office Action rejects Claims 84, 85, 92 and 93 under 35 U.S.C. § 103(a) as being unpatentable over *Puri* in view of *Murray* and further in view of U.S. Patent 4,527,639 issued to Dickenson, III, et al. ("*Dickenson*"). Applicants respectfully disagree with this rejection.

As described above, there is no motivation or teaching in either *Puri* or *Murray* to combine the system or method disclosed in *Puri* with that disclosed in *Murray*. *Dickenson* does not supply the missing motivation. Furthermore, there is no suggestion in *Dickenson* that the cavity disclosed in that patent could be combined with the drainage pattern of the present invention. For at least these reasons, and because they depend from allowable

independent claims, Applicants respectfully request reconsideration and allowance of Claims 84, 85, 92 and 93.

Double Patenting Rejection

The Office Action rejects 79-96 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 1-14 of U.S. Patent No. 6,280,000. Applicants have enclosed an appropriate terminal disclaimer to address this rejection. Reconsideration and favorable action is requested.

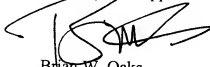
Conclusions

Applicants have made an earnest attempt to place this case in condition for allowance. For the foregoing reasons, and for other reasons clearly apparent, Applicants respectfully request full allowance of all pending claims.

Attached is a check in the amount of \$110.00 for the Terminal Disclaimer. No other fees are believed to be due, however, the Commissioner is hereby authorized to charge any fees or credit any overpayments to Deposit Account No. 02-0384 of Baker Botts L.L.P.

Respectfully submitted,

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Marked-Up Version of Claims

For the convenience of the Examiner, all claims have been presented whether or not an amendment has been made. The claims have been amended as follows.

IN THE CLAIMS

Please amend the Claims as follows:

79. (Twice Amended) A method for producing coal seam gas from a coal seam comprising:

forming a drainage pattern in a coal seam, the drainage pattern comprising a plurality of auxiliary drainage bores extending from, and arranged in substantially equal and parallel spacing on opposite sides of, a main drainage bore **such that the drainage pattern provides substantially uniform coverage of a selected area of the coal seam in which the drainage pattern is located;** and

simultaneously **[producing] removing** water and coal seam gas **[from] substantially uniformly from the selected area of** the coal seam through the drainage pattern.

80. The method of Claim 79, wherein the a main bore is substantially horizontal.

81. The method of Claim 80, wherein the auxiliary drainage bores are generally symmetrically arranged on each side of the central bore.

82. (Amended) The method of Claim 79, **wherein the selected** **[further comprising simultaneously producing water and coal seam gas from an]** area of the coal seam **[, the area having] has** relatively equal length to width ratios.

83. The method of Claim 79, wherein the drainage pattern comprises a substantially horizontal pattern.

84. The method of Claim 79, further comprising forming an enlarged diameter cavity, the drainage pattern extending from the enlarged diameter cavity; and

simultaneously producing water and coal seam gas from the coal seam through the enlarged diameter cavity.

85. The method of Claim 84, wherein the enlarged diameter cavity comprises a diameter of approximately eight feet.

86. The method of Claim 79, wherein the auxiliary drainage bores are progressively shorter as they progress away from a surface well bore.

87. (Twice Amended) A method for producing formation gas from a gas bearing formation, comprising:

forming a drainage pattern in a gas bearing formation, the drainage pattern comprising a plurality of auxiliary drainage bores extending from, and arranged in substantially equal and parallel spacing on opposite sides, a main drainage bore such that the drainage pattern provides substantially uniform coverage of a selected area of the gas bearing formation in which the drainage pattern is located; and

simultaneously [producing] moving water and formation gas [from] substantially uniformly from the selected area of the gas bearing formation.

88. The method of Claim 87, wherein the a main bore is substantially horizontal.

89. The method of Claim 88, wherein the auxiliary drainage bores are generally symmetrically arranged on each side of the central bore.

90. (Amended) The method of Claim 87, wherein the selected [further comprising simultaneously producing water and formation gas from an] area of the gas bearing formation [, the area having relatively] has equal length to width ratios.

91. The method of Claim 87, wherein the drainage pattern comprises a substantially horizontal pattern.

92. The method of Claim 87, further comprising forming an enlarged diameter cavity, the drainage pattern extending from the enlarged diameter cavity; and
simultaneously producing water and formation gas from the gas bearing formation through the enlarged diameter cavity.

93. The method of Claim 92, wherein the enlarged diameter cavity comprises a diameter of approximately eight feet.

94. The method of Claim 87, wherein the auxiliary drainage bores are progressively shorter as they progress away from a surface well bore.

95. The method of Claim 87, wherein water and formation gas are produced from a substantially quadrilateral area of the gas bearing formation.

96. The method of Claim 87, wherein the drainage pattern provides substantially uniform coverage of an area of the gas bearing formation.